

# **[Automatic schematic diagram generation using topology information]**

## **Abstract of Disclosure**

A netlist of a schematic diagram is generated. The netlist indicates the connectivity of components through connection lines. A normal display mode is provided in which at least a portion of the components are presented on the display, and connection lines corresponding to the components are also displayed. A topology display mode is provided in which the components are presented on the display without the connection lines. The user can switch between the topology display mode and the normal display mode while editing the schematic diagram. Automatic pin assignment and routing of the connection lines is performed according to the netlist, and is based upon grouping similarly classified connection lines. An abstract display mode is provided that presents abstract lines for a selected component, with a single abstract line running between two connected components. The abstract display mode is combinable with the topology display mode. Finally, the automatic positioning of components according to predefined topology templates is provided.

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